

# OFFICE OF PROJECT DEVELOPMENT & ENVIRONMENTAL REVIEW



<http://www.environment.fhwa.dot.gov/>

FHWA's Office of Project Development and Environmental Review develops and implements programs and activities that accelerate project delivery for FHWA-funded projects to improve the environmental review process under the National Environmental Policy Act (NEPA) and related environmental laws.

The Federal Highway Administration's (FHWA) Office of Planning, Environment, and Realty offers research opportunities to improve transportation decision making and promote efficiency while protecting communities and the environment. The Office supports and conducts research that:

- ◆ Informs Decisions
- ◆ Reduces Environmental Impacts
- ◆ Enhances Quality of Life
- ◆ Accelerates Project Delivery
- ◆ Advances Transportation Planning

## Research Focus

The Office's research efforts focus on improving the NEPA process to expedite transportation decision making and improve environmental outcomes. Research projects study how to protect the environment while meeting the public's need for safe, efficient transportation improvements. Research topics include:

- ◆ Accelerating project delivery
- ◆ Programmatic approaches
- ◆ Improving the quality of environmental documents
- ◆ Threatened and endangered species
- ◆ Water quality
- ◆ Historic preservation

The Office's research seeks to identify methods to help FHWA stakeholders effectively evaluate project and

program impacts and identify, improve, and implement sound mitigation options. Methods and tools like mitigation banking and regional programmatic efforts are examples of current focus areas the Office is studying.

The Office aims to improve coordination and communication between State departments of transportation (DOTs), partner agencies, and the public to ensure project understanding and create new efficiencies.

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## FEATURED RESEARCH ACTIVITIES

### Stochastic Empirical Loading and Dilution Model (SELDM)

FHWA and the U.S. Geological Survey developed SELDM to replace FHWA's 1990 stormwater runoff model, Driscoll. SELDM calculates probability that established water quality criteria is higher with or without user-defined best management practices (BMPs). SELDM also calculates annual runoff loads, can analyze annual lake-loading analysis, and includes national data sets for highway-runoff water. SELDM transforms complex scientific data into meaningful information about adverse effects risks of runoff on receiving waters and potential mitigation measures and their potential effectiveness. For more information, visit the [Stochastic Empirical Loading and Dilution Model website](#).

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## Red Book

Transportation projects require multiple federal permits, approvals, and reviews to avoid and minimize adverse impacts to the environment. Between 2013 and 2015, a federal interagency working group updated the 1988 handbook, “Applying the Section 404 Permit Process to Federal-Aid Highway Projects,” or the “Red Book.” The workgroup, which included FHWA, USACE, USCG, EPA, FWS, FRA, and NMFS, developed the revised Red Book that provides “how-to” guidance for federal agency field staff to synchronize the environmental review and permitting processes, and provide the necessary information on those processes to federal, state, and local agencies that fund or develop transportation projects. The principles included in the Red Book have helped synchronize NEPA and permitting in projects across the country, including those required to follow the One Federal Decision process per Executive Order 13807 and the updated Council on Environmental Quality regulations.

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## Species Conservation Programmatic

HEPE partnered with the U.S Fish and Wildlife Service (USFWS) to complete a range-wide programmatic consultation covering transportation projects and their impacts to two federally-listed bat species: the endangered Indiana Bat and the threatened Northern Long-Eared Bat. Transportation agencies can use the programmatic consultation to complete section 7 consultation for actions that are determined Not Likely to Adversely Affect or Likely to Adversely Affect the two bats. The USFWS chose the bats programmatic as a pilot to deliver the consultation through their Information, Planning and Conservation system: [Information, Planning and Conservation](#).

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## Eco-Logical

The Eco-Logical approach is a nine-step framework that sets forth a process to identify and integrate transportation and ecological priorities for infrastructure and conservation decision-making. By fostering collaboration, the Eco-Logical approach reduces the time and cost of meeting environmental regulations while maximizing the avoidance of resources and leading to better environmental outcomes.

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